

REMARKS

Claims 1-18 are currently pending. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norlander (US 6,176,973).

The Rejection of Claims 1-18 Under U.S.C § 103(a)

The rejection of Claims 1-18 under U.S.C §103(a) as being unpatentable over Norlander is respectfully traversed. Applicants submit that the Examiner has not established a *prima facie* case of obviousness.

Norlander teaches crosslinking of cellulose fibers by reacting the cellulose fibers with an effective quantity of one or more water soluble *polymers* which have been prepared in advance (Column 2, line 18 and line 42 and column 5, line 22) to reduce emissions, (column 2, line 50). In fact, to further reduce the emission of the polyol, a di-, tri-, or poly functional alcohol having a higher molecular weight than glycerol, for example, trimethylpropane (TMP), can be used as the polyol in the polymerization of the citric acid and TMP (column 2, line 50). This polymer, in turn, is used for crosslinking the cellulosic fibers.

In the instant invention, the applicant teaches, in part, applying an effective amount of the crosslinking agent in the presence of an effective amount of a polyol to a mat of cellulosic fibers, i.e., the crosslinking agents are added as *monomers*, not as *polymers prepared in advance* to impregnating the cellulose fibers with the crosslinking reaction product.

Since the Norlander reference teaches using water-soluble polymers which have been prepared in advance and then using these to impregnate the cellulose fibers prior to crosslinking the fibers, the reference teaches away from the claimed invention. References that teach away cannot serve to create a *prima facie* case of obviousness.

Applicants appreciate the acknowledgement by the Examiner that the reference fails to teach that the *bleaching takes place last*, the failure of the

reference to teach the acids of Claims 2 and 5, the polyols of Claims 6-12 and the bleaching agent and amounts of Claims 15-18.

The Norlander reference teaches the cellulose fibers *for the crosslinking* can be selected from the bleached, partially bleached and unbleached, sulfate- or sulfite-delignified, softwood or hardwood fiber groups. That is, the starting fiber may be a bleached fiber as indicated by the use of STORA Fluff EC 0.1 which is a bleached sulfate pulp (column 12, line 40). The reference is silent on bleaching the crosslinked fibers as the last step in the claimed invention after "curing the crosslinking agent in the presence of a polyol to form individualized intrafiber crosslinked cellulosic fibers" as cited in Claim 1. Support for this is also found on page 5, line 8, of the application.

As noted in the application page 2, line 26, citric acid can cause discoloration of the white cellulosic fibers when the treated fibers are cured at the elevated temperatures required for crosslinking. As indicated on page 3, line 5 of the application, further increase in color and brightness can be obtained by contacting the crosslinked fibers with a bleaching agent.

CONCLUSION

Based on the foregoing, Applicants submit that the application is in condition for allowance and request that it proceed accordingly. If the Examiner has any further questions or comments the Examiner is invited to contact the Applicants' agent.

Respectfully submitted

A handwritten signature in black ink, appearing to read "D. Unrau", is written over a circular stamp that contains the number "19".

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